



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

RE: **LAND O-LAKES 027-16536-00005**
TO: Interested Parties / Applicant
FROM: *Paul Dubenetzky*
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

8/21/02 FNPER.wpd



Governor

Lori F. Kaplan
Commissioner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

to make Indiana a cleaner, healthier place to live.

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-

6015

(317) 232-8603
(800) 451-6027
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MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Land O' Lakes Farmland Feeds LLC
Route 1, Box 15A
Loogootee, Indiana 47553**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 027-16536-00005

Issued by: **Original signed by**
Paul Dubenetzky, Branch Chief
Office of Air Quality

Issuance Date: **April 15, 2003**

Expiration Date: **April 15, 2008**

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates stationary animal feed manufacturing plant.

Authorized Individual: EHS Leader, Feed Division
Source Address: Route 1, Box 15A, Loogootee, Indiana 47553
Mailing Address: P.O. Box 66812, St. Louis, MO 63166
General Source Phone: (314) 768-4630
SIC Code: 2048
County Location: Daviess
Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) Kewanee boiler (identified as boiler no. 1), burning natural gas, with a heat input capacity of 6.3 MMBtu/hr, using propane as a backup fuel and exhausting to stack 6. Installed in 1975.
- (b) One (1) Sellers boiler (identified as boiler no. 2), burning natural gas, with a heat input capacity of 8.4 MMBtu/hr, using propane as a backup fuel and exhausting to stack 7. Installed in August, 1996.
- (c) One (1) grain and mill receiving pit, constructed prior to 1978, with a maximum receiving capacity of sixty-six hundred thousand (660,000) pounds of grains, mills and soft stock per hour.
- (d) One (1) bin loading, constructed prior to 1978, with a maximum loading capacity of sixty-six hundred thousand (660,000) pounds of grain, mills and soft stock per hour.
- (e) One (1) pelleting no. 1 process, constructed prior to 1978, with a maximum process rate of fifty thousand (50,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 3.
- (f) One (1) pelleting no. 2 process, constructed prior to 1978, with a maximum process rate of twenty-eight thousand (28,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 4.
- (g) One (1) bulk station, constructed prior to 1978, with a maximum load-out rate of twenty-two hundred thousand (220,000) pounds of animal feed per hour.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management

Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on

pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.7 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.11 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.12 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.13 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the

date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (c) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (c) One (1) grain and mill receiving pit, constructed prior to 1978, with a maximum receiving capacity of sixty-six hundred thousand (660,000) pounds of grains, mills and soft stock per hour.
- (d) One (1) bin loading, constructed prior to 1978, with a maximum loading capacity of sixty-six hundred thousand (660,000) pounds of grain, mills and soft stock per hour.
- (e) One (1) pelleting no. 1 process, constructed prior to 1978, with a maximum process rate of fifty thousand (50,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 3.
- (f) One (1) pelleting no. 2 process, constructed prior to 1978, with a maximum process rate of twenty-eight thousand (28,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 4.
- (g) One (1) bulk station, constructed prior to 1978, with a maximum load-out rate of twenty-two hundred thousand (220,000) pounds of animal feed per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3, particulate emissions from the grains and mills receiving pit, bin loading and bulk station shall not exceed the pound per hour limit provided in the table below:

Facility	Process Weight (tons/hr)	Particulate Emission Limit (lbs/hr)
Grain and Mills Receiving Pit	330	64.1
Bin Loading	330	64.1
Bulk Station	110	52.2

The pounds per hour limitation was calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rates in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3, particulate emissions from the pelleting no. 1 and pelleting no. 2 shall not exceed the pound per hour limit provided in the table below.

Facility	Process Weight (tons/hr)	Particulate Emission Limit (lbs/hr)
Pelleting no. 1	25	35.4
Pelleting no. 2	14	24.0

The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

Compliance Determination Requirements

D.1.3 Particulate Control

In order to comply with Condition D.1.1, the cyclones used for particulate control shall be in operation and control emissions from the pelleting no. 1 and pelleting no. 2 facilities at all times these facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(2)]

D.1.4 Visible Emissions Notations

- Visible emission notations of the bin loading facility shall be performed once per shift during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

- To document compliance with Condition D.1.4, the Permittee shall maintain records of visible emission notations of the bin loading facility.

- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) Kewanee boiler (identified as boiler no. 1), burning natural gas, with a heat input capacity of 6.3 MMBtu/hr, using propane as a backup fuel and exhausting to stack 6. Installed in 1975.
- (b) One (1) Sellers boiler (identified as boiler no. 2), burning natural gas, with a heat input capacity of 8.4 MMBtu/hr, using propane as a backup fuel and exhausting to stack 7. Installed in August, 1996.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (e) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), the particulate emissions from the Kewanee boiler, which was constructed after June 8, 1972, shall in no case exceed 0.6 pounds of particulate matter per million British thermal units heat input.

D.2.2 Particulate Matter (PM) [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the particulate emissions from the Sellers boiler shall not exceed 0.54 pounds per million British thermal units heat input.

This limitation is based on the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where P_t = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour heat input (14.7MMBtu/hr)

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Land O' Lakes Farmland Feeds LLC
Address:	Route 1, Box 15A
City:	Loogootee, Indiana 47553
Phone #:	314-768-4630
MSOP #:	027-16536-00005

I hereby certify that Land O' Lakes Farmland Feeds LLC is

- ☒ still in operation.
☐ no longer in operation.

I hereby certify that Land O' Lakes Farmland Feeds LLC is

- ☒ in compliance with the requirements of MSOP 027-16536-00005.
☐ not in compliance with the requirements of MSOP 027-16536-00005.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?____, 25 TONS/YEAR SULFUR DIOXIDE ?____, 25 TONS/YEAR NITROGEN OXIDES?____, 25 TONS/YEAR VOC ?____, 25 TONS/YEAR HYDROGEN SULFIDE ?____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?____, 25 TONS/YEAR FLUORIDES ?____, 100TONS/YEAR CARBON MONOXIDE ?____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

April 15, 2003

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name:	Land O' Lakes Farmland Feeds LLC
Source Location:	Route 1, Box 15A, Loogootee, Indiana 47553
County:	Daviess
SIC Code:	2048
Operation Permit No.:	027-16536-00005
Permit Reviewer:	ERG/SD

The Office of Air Quality (OAQ) has reviewed an application from Land O' Lakes Farmland Feeds LLC relating to the operation of an animal feed manufacturing plant.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted facilities/units:

- (a) One (1) Kewanee boiler (identified as boiler no. 1), burning natural gas, with a heat input capacity of 6.3 MMBtu/hr, using propane as a backup fuel and exhausting to stack 6. Installed in 1975.
- (b) One (1) Sellers boiler (identified as boiler no. 2), burning natural gas, with a heat input capacity of 8.4 MMBtu/hr, using propane as a backup fuel and exhausting to stack 7. Installed in August, 1996.
- (c) One (1) grain and mill receiving pit, constructed prior to 1978, with a maximum receiving capacity of sixty-six hundred thousand (660,000) pounds of grains, mills and soft stock per hour.
- (d) One (1) bin loading, constructed prior to 1978, with a maximum loading capacity of sixty-six hundred thousand (660,000) pounds of grain, mills and soft stock per hour.
- (e) One (1) pelleting no. 1 process, constructed prior to 1978, with a maximum process rate of fifty thousand (50,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 3.

- (f) One (1) pelleting no. 2 process, constructed prior to 1978, with a maximum process rate of twenty-eight thousand (28,000) pounds of feed pellets per hour, equipped with a cyclone that is integral to the process and exhausts to stack 4.
- (g) One (1) bulk station, constructed prior to 1978, with a maximum load-out rate of two hundred and twenty thousand (220,000) pounds of animal feed per hour.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

No previous approvals have been issued to this source.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the two (2) cyclones be considered as an integral part of the pelleting no. 1 and no. 2 processes:

A November 14, 1995 EPA memorandum, titled "Calculating PTE and other Guidance for Grain Handling Facilities," specifically mentions product recovery cyclones association with pellet cooling facilities as an example of a control device that is integral to the process. This EPA memorandum states that "control measures are inherent to an operation when they are always operated and maintained for reasons other than community air quality protection. Examples of inherent control measures include (a) product collection devices for which the value of the product collected greatly exceeds the cost of the collection device, and (b) devices for which the primary purpose is to improve product-quality control, to recover product, or to enhance production operating efficiency (for example, product recovery cyclones associated with operations such as pellet cooling at feed mills)." Hence, the potential to emit PM₁₀ from pelleting no. 1 and no. 2 processes will be calculated after the controls.

IDEM, OAQ has evaluated the justification and agreed that the two (2) cyclones will be considered as an integral part of the pelleting no. 1 and no. 2. Therefore, the permitting level will be determined using the potential to emit after the two (2) cyclones. Operating conditions in the proposed permit will specify that these two (2) cyclones shall operate at all times when the pelleting no. 1 and no. 2.

Enforcement Issue

- (a) IDEM is aware that equipment has been operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled Unpermitted Emission Units and Pollution Control Equipment.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Process	Height in feet above ground	Inside Diameter (ft)	Gas discharge temp. (EF)
3	Pelleting No.1	41	1.67	150
4	Pelleting No.2	41	2	150

6	Boiler No.1	23	1.33	450
7	Boiler No.2	25	1.33	450

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on 12/04/02, with additional information received on 01/17/03.

Emission Calculations

See Appendix A of this document for detailed emissions calculations Appendix A (pages 1 through 14).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	176.6
PM-10	84.7
SO ₂	1.09
VOC	0.70
CO	6.70
NO _x	16.3

HAP's	Potential To Emit (tons/year)
TOTAL	Negligible

- The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM₁₀, SO₂, VOC, CO, and NO_x are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM₁₀ are greater than 25 tons per year, therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a

combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.

(d) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Daviess County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Daviess County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Daviess County has been classified as attainment or unclassifiable for PM₁₀, SO₂, NO₂, Ozone, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	176.6
PM10	84.7
SO ₂	1.09
VOC	0.7
CO	6.7
NO _x	16.3

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions are based on the calculations provided in Appendix A.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The animal feed manufacturing plant is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.300, Subpart DD), because the source was constructed before August 3, 1978 and has not been modified or reconstructed.
- (b) Although constructed after June 9, 1989, the Sellers boiler is not subject to the New Source Performance Standard, 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12) because the maximum heat input capacity of the boiler is less than 10 MMBtu per hour.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD)

The source was an existing minor source when it was built in the mid 1960's. It is not one of the 28 listed source categories. There have been no modifications since the source was built. The potential to emit each criteria pollutant from the entire source is less than 250 tons per year. Therefore, this source is an existing minor source and the requirements of 326 IAC 2-2 and 40 CFR 52.21 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Daviess County and the potential to emit PM₁₀, NO_x, VOC, SO₂, and CO are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

This source was constructed prior to the July 27, 1997 applicability date for this rule; therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability - Animal Feed Processing

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable PM emission rate from the animal feed manufacturing plant shall not exceed the particulate emission unit in pounds per hour as shown in the table below.

Facility	Process Weight		Particulate Emissions Limit
	(tons/hr)	(lbs/hr)	
Grain and Mills Receiving	330	660,000	64.1
Bin Loading	330	660,000	64.1
Pelleting No. 1	25	50,000	35.4
Pelleting No. 2	14	28,000	24.0
Bulk Station	110	220,000	52.2

The pounds per hour limitations were calculated using the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The two (2) cyclones shall be in operation at all times the pelleting no. 1 and no. 2 facilities are in operation, in order to comply with this limit. There are no controls associated with the rest of the emission units at the plant. Based on the calculations provided in Appendix A, these emission units will be in compliance with this rule.

State Rule Applicability - Kewanee Boiler

326 IAC 6-2-3(a) (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-3, the particulate emissions from the 6.3 MMBtu/hr Kewanee Boiler (identified as boiler no. 1) which was existing and in operation before September 21, 1983 shall not exceed the particulate emission rate calculated using the following equation:

$$P_t = \frac{(c \times a \times h)}{(50)(0.67)(23)}$$

$$76.5 \times Q^{0.75} \times N^{0.25}$$

$$76.5 \times 6.3^{0.75} \times (1)^{0.25}$$

$$Pt = 2.5 \text{ lbs/MMBtu}$$

Where:

- Pt = Emission rate limit (lbs/MMBtu)
- C = 50 ug/m³
- a = Plume rise factor (0.67)
- Q = Total source heat input capacity rating in million Btu per hour (6.3 MMBtu/hr)
- N = Number of Stacks
- h = Stack Height (ft)

However, 326 IAC 6-2-3(e) states that boilers constructed after June 8, 1972 shall in no case exceed 0.6 pounds of particulate matter per MMBtu heat input. Since 0.6 pound particulate matter per MMBtu emission limit is less than the limit calculated using the equation, the Kewanee boiler shall be limited to 0.6 pounds of particulate matter per MMBtu heat input.

State Rule Applicability - Sellers Boiler

326 IAC 6-2-3(a) (Particulate Emission Limitations for Source of Indirect Heating)

Pursuant to 326 6-2-3, the particulate emissions from the 8.4 MMBtu/hr Seller Boiler (identified as boiler no. 2) which was existing and in operation after September 21, 1983 shall be limited to 0.54 pounds of particulate matter per MMBtu heat input.

This limit is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where Pt = Emission Rate Limit (lb/MMBtu)
Q = Total source heat input capacity rating in million Btu per hour (14.7MMBtu/hr)

Conclusion

The operation of this animal feed manufacturing plant shall be subject to the conditions of the attached Minor Source Operating Permit 027-16536-00005.

Appendix A: Emission Calculations
6.3 MMBtu/hr Kewanee Boiler

Company Name: Land O' Lakes Farmland Feeds LLC
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

6.3

55.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.2	0.02	2.7	0.2	2.3

*PM and PM10 emission factors are filterable and condensable PM and PM10 combined.
**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
6.3 MMBtu/hr Kewanee Boiler

Company Name: Land O' Lakes Farmland Feeds LLC
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

HAPs - Organics

Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	5.774E-05	3.299E-05	2.062E-03	4.949E-02	9.348E-05

HAPs - Metals

Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.375E-05	3.024E-05	3.849E-05	1.045E-05	5.774E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

8.4 MMBtu/hr Sellers Boiler

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

8.4

73.3

	Pollutant					
	PM*	PM10*	SO2	NO _x	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.3	0.3	0.02	3.7	0.2	3.1

*PM and PM10 er

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBt

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (t

See next page for HAPs emissions calculations.

8.4 MMBtu/hr Sellers Boiler

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

HAPs - Organics

Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	7.699E-05	4.399E-05	2.750E-03	6.599E-02	1.246E-04

HAPs - Metals

Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.833E-05	4.033E-05	5.132E-05	1.393E-05	7.699E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Propane Combustion in 6.3MMBtu/hr Kewanee Boiler

Company Name: Land O' Lakes Farmland Feeds LLC
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

Heat Input Capacity
MMBtu/hr

6.3

Potential Throughput
kgals/year

600.9

Sulfur Content (gr/100 ft³)

15

		Pollutant				
	PM*	PM10*	SO ₂	NO _x	VOC	CO
Emission Factor in lb/kgal	0.4	0.4	1.5 (0.10S)	14	0.5	1.9
Potential Emission in tons/yr	0.12	0.12	4.5E-01	4.21	0.15	0.57

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of propane has a heating value of 91,500 Btu.

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.0915 MMBtu

Emission Factors from AP-42, Chapter 1.5-1, SCC #1-03-010-02.(AP-42 Supplement B 10/96)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Appendix A: Emission Calculations
Propane Combustion in 8.4MMBtu/hr Sellers Boiler

Company Name: Land O' Lakes Farmland Feeds
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

Heat Input Capacity
MMBtu/hr

8.4

Potential Throughput
kgals/year

804.2

Sulfur Content (gr/100 ft³)

15

	Pollutant					
Emission Factor in lb/kgal	PM*	PM10*	SO ₂	NO _x	VOC	CO
	0.4	0.4	1.5 (0.10S)	14	0.5	1.9
Potential Emission in tons/yr	0.16	0.16	6.0E-01	5.63	0.20	0.76

*PM and PM10 emission factors are condensable and filterable PM10 combined.

Methodology

1 gallon of propane has a heating value of 91,500 Btu.

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.0915 MMBtu

Emission Factors from AP-42, Chapter 1.5-1, SCC #1-03-010-02.(AP-42 Supplement B 10/96)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Particulate from Grain and Mill Receiving

Company Name:
Address City IN Zip:
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

	Receiving Capacity (tons/hr)	Emission Factor* (lbs/ton)	PTE Before Controls (tons/yr)	Control Efficiency	PTE After Controls (tons/yr)
PM	330	0.017	24.6	0.0	24.6
PM₁₀	330	0.0025	3.6	0.0	3.6

* Emission factors from AP-42, Table 9.9.1-2 (Animal Feed Mills, Grain Receiving, SCC 3-02-008-02). May 1998

Methodology

PTE = Receiving capacity (tons/hr)* PM emission factor (lbs/hr)* 1

Particulate from Internal Handling (bin loading)

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

	Handling Capacity (tons/hr)	Emission Factor* (lbs/ton)	PTE Before Controls (tons/yr)	Control Efficiency	PTE After Controls (tons/yr)
PM	330	0.061	88	0%	88
PM₁₀	330	0.034	49	0%	49

* Emission factors from AP-42, Table 9.9.1-2 (Headhouse and Internal Handling, SCC 3-02-005-30). May 1998

Methodology

PTE = Handling capacity (tons/hr)*PM emission

Company Name:
Address City IN Zip:
MSOP: 027-16536
Pit ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

	Maximum Rate (tons/hr)	Emission Factor* (lbs/ton)	PTE After Controls (tons/yr)	Cyclone Control Efficiency	PTE Before Controls (tons/yr)
PM	25	0.36	39	97%	1314
PM₁₀	25	0.18	20	97%	657

* Emission factors from AP-42

PM10 test data are not available. PM10 emission factors have been estimated by taking 50% of the PM emission factor
 (See footnote (g) to Table 9.9.1-2, AP-42)

Methodology

PTE = Maximum Rate (tons/h

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

	Maximum Rate (tons/hr)	Emission Factor* (lbs/ton)	PTE After Controls (tons/yr)	Cyclone Control Efficiency	PTE Before Controls (tons/yr)
PM	14	0.36	22.1	97%	736
PM₁₀	14	0.18	11.0	97%	368

* Emission factors from AP-42

PM10 test data are not available. PM10 emission factors have been estimated by taking 50% of the PM emission factor
(See footnote (g) to Table 9.9.1-2, AP-42)

Methodology

PTE = Maximum Rate (tons/h

Particulate from Bulk Station

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

	Maximum Rate (tons/hr)	Emission Factor* (lbs/ton)	PTE Before Controls (tons/yr)	Control Efficiency	PTE After Controls (tons/yr)
PM	110	0.0033	1.6	0%	1.6
PM₁₀	110	0.0008	0.4	0%	0.4

* Emission factors from AP-42, Table 9.9.

** Assume all PM emissions are PM₁₀.

Methodology

Summary

Company Name:
Address City IN Zip:
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

POTENTIAL TO EMIT IN TONS PER YEAR BEFORE CONTROLS

Source	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NO _x (tons/yr)	VOC (tons/yr)	CO (tons/yr)
Kewannee Boiler	0.2	0.2	0.02	2.7	0.2	2.3
Sellers Boiler	0.3	0.3	0.02	3.7	0.2	3.1
Kewannee: Propane	0.1	0.1	0.45	4.2	0.2	0.6
Sellers : Propane	0.2	0.2	0.60	5.6	0.2	0.8
Grain and Mills Receiving	24.6	3.6				
Bin Loading	88.2	49.1				
Pelleting No 1	39.4	19.7				
Pelleting No 2	22.1	11.0				
Bulk Station	1.6	0.4				
	176.6	84.7	1.1	16.3	0.7	6.7

Appendix A: Emission Calculations Allowable Emissions

Company Name: Land O' Lakes Farmland Feeds LLC
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
MSOP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 7-Jan-03

Unit	Boiler	Heat Input Q (mmBtu/hr)	Installed	PM Limit lbs/MMBtu
1	Kewanee	6.3	1975	0.6
2	Sellers	8.4	1996	

Boiler no. 1

C (ug/m3)	50
a	0.67
h (ft)	23
N	1
Q	6.277
*Pt (lbs/MMBtu)	2.54

Boiler no. 2

C (ug/m3)	50
a	0.67
h (ft)	25
N	1
Q	14.647
**Pt (lbs/MMBtu)	0.54

METHODLOGY

$$*Pt = ((C * a * h) / (76.5 * (Q^{0.75}) * (N^{0.25})))$$

$$**Pt = (1.09 / (Q^{0.26}))$$

Appendix A: Emission Calculations
Process Weight Rate

Company Name: Land O' Lakes Farmlands Feeds LLC
Address City IN Zip: Route 1, Box 15 A, Loogootee IN 47553
CP: 027-16536
Plt ID: 027-00005
Reviewer: ERG/SD
Date: 24-Jan-03

Facility	Process Weight		Particulate Emissions Limit	Particulate Estimated Emissions
	(tons/hr)	(lbs/hr)	(lbs/hr)	(lbs/hr)
Grain and Mills Receiving	330	660000	64.1	5.6
Bin Loading	330	660000	64.1	20.1
Pelleting No 1	25	50000	35.4	9.0
Pelleting No 2	14	28000	24.0	5.0
Bulk Station	110	220000	52.2	0.36

Methodology

For process weight rate of upto to 60,000 pounds per hour : Emission limit (lbs/hr) = $4.10 \times \text{Process wt (tons/hr)}^{0.67}$
For process weight in excess of 60,000 pounds per hour : Emission limit (lbs/hr) = $55.0 \times \text{Process wt (tons/hr)}^{0.11} - 40$